

FIG. 1

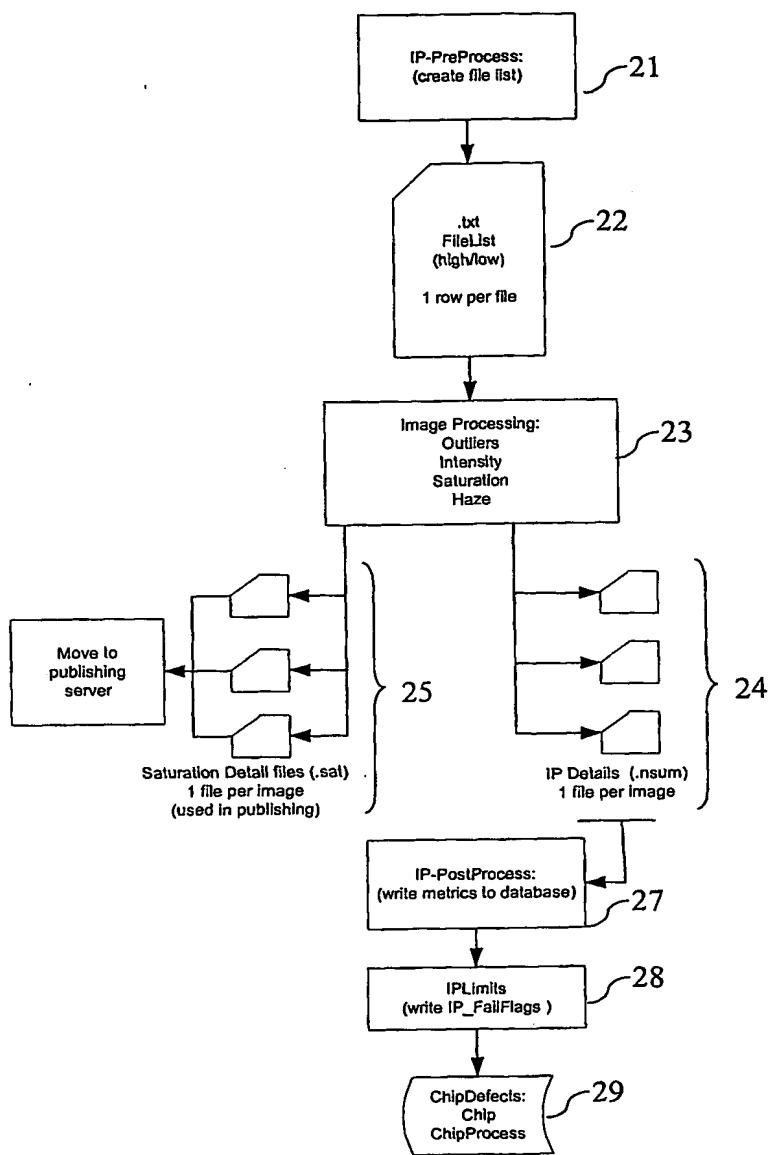


Image Processing Workflow

FIG. 2

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OC Workbench - PRODUCTION MODE

Expt Name	Scan Date	Process	Pass/Fail	Reason	IP Fail Flags	IP Fail Description	Chip Type	Intensity	Mean	AvgOff	Needs Mask		Fixed		Slope	
											No Mask		Not Fixed			
											Raw S/G	Raw G/DH	Raw S/G	Raw G/DH		
1	08132MV/274A21	2002-01-17 1' Archive	pass		0000000 00000100	slv, Uneven, MG_U74Av	439	152	1.000	0.782	130	2399	3792	0.966		
2	08132MV/274B21	2002-01-17 1' Archive	pass		0010000 00000100	Grid, Intensity MG_U74Bv	410	53	1.030	0.751	123	3718	4157	0.933		
3	08132AV/274C21	2002-01-17 1' Archive	fail	Dim Locally	1011000 01001000	and, Uneven, MG_U74Cv	168	10	0.604	0.774	66	1751	3613	0.978		
4	08163MV/274A11	2002-01-17 1' Archive	pass		1000000 00000000	MG_U74Av	313	73	0.731	0.374	201	5105	2825	0.992		
5	08163MV/274B11	2002-01-17 1' Archive	pass		0000000 00000000	acts, Uneven, MG_U74Bv	232	35	0.710	0.369	218	6315	3463	0.933		
6	08163MV/274C11	2002-01-17 1' Archive	pass		0000000 00000000	MG_U74Cv	222	10	0.717	0.400	203	9887	1927	0.992		
7	08165MV/274A21	2002-01-17 1' Archive	pass		0000000 00000100	slv, Uneven, MG_U74Av	553	181	0.729	0.707	153	3547	3471	0.984		
8	08165MV/274B21	2002-01-17 1' Archive	pass		0000000 00000000	Grid, Uneven, MG_U74Bv	291	57	0.709	0.661	98	3155	4007	0.981		
9	08165AV/274C21	2002-01-17 1' Archive	pass		0000000 00001100	Grid, Intensity MG_U74Cv	443	49	0.774	0.649	174	3563	3165	0.984		
10	08177MV/274A21	2002-01-17 1' Archive	pass		0000000 00010700	All, Intensity MG_U74Av	431	153	1.020	0.540	273	2459	3118	0.011		
11	08177MV/274B11	2002-01-17 1' Archive	pass		0000000 00100000	All MG_U74Bv	370	79	0.892	0.515	335	3020	4097	0.009		
12	08177MV/274C11	2002-01-17 1' Archive	fail	Bright Overall	0010000 00100100	Grid, Intensity MG_U74Cv	531	40	0.892	0.486	441	3777	2742	0.002		
13	08184MV/274C11	2002-01-17 1' Archive	pass		0000000 00100100	slv, Uneven, MG_U74Cv	543	61	0.951	0.526	637	4456	2814	0.015		
14	08194MV/274A11	2002-01-17 1' Archive	pass		0000000 00000000	Grid, Uneven, MG_U74Av	382	98	0.704	0.632	204	6591	3474	0.990		
15	08194MV/274B11	2002-01-17 1' Archive	pass		0000000 00000000	acts, Uneven, MG_U74Bv	283	37	0.703	0.554	166	4314	4103	0.991		
16	08194MV/274C11	2002-01-17 1' Archive	pass		0000000 00010000	Admix, Grid MG_U74Cv	336	25	0.693	0.603	223	4537	3206	0.988		
17	08195MV/274C21	2002-01-17 1' Archive	pass		0000000 00000000	Admix, Grid MG_U74Cv	256	21	0.928	0.389	197	5069	2702	0.992		
18	08197MV/274A11	2002-01-17 1' Archive	pass		0000000 00000100	slv, Uneven, MG_U74Av	447	115	0.720	0.602	156	4033	3152	0.993		
19	08197MV/274B11	2002-01-17 1' Archive	pass		0000000 00000000	acts, Uneven, MG_U74Bv	369	55	0.766	0.598	146	4325	3743	0.984		
20	08197MV/274C11	2002-01-17 1' Archive	fail	Bright Overall	0010000 00100100	slv, Uneven, MG_U74Cv	568	76	0.732	0.623	322	7569	2639	0.985		
21	08198MV/274A11	2002-01-17 1' Archive	pass		0000000 00000000	Grid, Uneven, MG_U74Av	367	90	0.590	0.531	183	5456	3401	0.988		
22	08198MV/274B11	2002-01-17 1' Archive	pass		0000000 01000100	and, Uneven, MG_U74Bv	310	34	0.659	0.493	132	3416	4071	0.990		
23	08198MV/274C11	2002-01-17 1' Archive	pass		0000000 00000100	slv, Uneven, MG_U74Cv	402	36	0.705	0.685	335	7193	2973	0.986		
24	08863MV/274C31	2002-01-17 1' Archive	fail	Haze	0000000 00000000	Grid, Uneven, MG_U74Cv	259	10	0.530	0.426	192	4637	1702	0.992		
25	09169MV/274A21	2002-01-17 1' Archive	fail	Bright Overall	0000000 00000100	slv, Uneven, MG_U74Av	629	224	0.659	0.485	174	3025	3730	0.989		
26	09169MV/274B21	2002-01-17 1' Archive	pass		0000000 00000100	slv, Uneven, MG_U74Bv	543	135	0.805	0.549	207	4589	3479	0.988		
27	09169MV/274C21	2002-01-17 1' Archive	pass		0000010 01000100	and, Intensity MG_U74Cv	372	49	0.777	0.546	164	2775	2705	0.987		
28	09221MV/274A21	2002-01-17 1' Archive	fail	High Backgrou...	0000100 00011100	Saturate, Sca MG_U74Av	1766	2	-2.047	-10.483	88	1788	5442	0.016		
29	09250MV/274A11	2002-01-17 1' Archive	fail	Dim Overall	0000100 00000100	slv, Uneven, MG_U74Av	91	0	0.002	-0.754	163	6780	912	0.995		
30	09250MV/274B11	2002-01-17 1' Archive	fail	Dim Overall	0000010 00000100	acts, Intensity MG_U74Bv	72	1	2.957	3.475	348	7386	1451	0.988		
31	09250MV/274C11	2002-01-17 1' Archive	fail	Dim Overall	1000000 00000000	Admix, Grid MG_U74Cv	120	1	-0.192	1.038	454	9244	1084	0.988		
32	09270MV/274A21	2002-01-17 1' Archive	fail	Dim Locally	0000000 00000000	MG_U74Av	333	103	0.368	0.261	135	2242	3828	0.987		
33	09270MV/274B21	2002-01-17 1' Archive	pass		0000000 00000000	MG_U74Bv	333	66	0.402	0.277	165	3374	4027	0.988		
34	09270MV/274C21	2002-01-17 1' Archive	pass		0000000 00000100	slv, Uneven, MG_U74Cv	419	52	0.409	0.258	237	3516	3145	0.982		
35	09295MV/274A21	2002-01-17 1' Archive	pass		0000000 00000000	Intensity MG_U74Av	557	173	0.639	0.623	131	2224	3506	0.992		

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FIG. 3

OK	Apply	Cancel	Save	Delete												
<input checked="" type="checkbox"/> Scan Date: Start Date: <input type="text" value="01/14/2002"/> <input type="button" value=">"/> End Date: <input type="text" value="01/21/2002"/> <input type="button" value=">"/> <input type="checkbox"/> History			<input type="checkbox"/> Needs Mask: <input checked="" type="radio"/> High <input type="radio"/> Low <input type="radio"/> Both													
<input type="checkbox"/> Process Date: Start Date: <input type="text" value="01/21/2002"/> <input type="button" value=">"/> End Date: <input type="text" value="01/21/2002"/> <input type="checkbox"/>			<input type="checkbox"/> Scanner Setting: <input checked="" type="radio"/> High <input type="radio"/> Low <input type="radio"/> Both													
<input type="checkbox"/> Experiment Name contains: <input type="text"/>			<input type="checkbox"/> Probe Array: <input type="checkbox"/> None <input type="checkbox"/> Bright Locally <input type="checkbox"/> Bright Overall <input type="checkbox"/> Crooked <input type="checkbox"/> Crop Circle <input type="checkbox"/> Dim Locally <input type="checkbox"/> Dim Overall <input type="checkbox"/> Haze <input type="checkbox"/> Haze Band <input type="checkbox"/> High Background <input type="checkbox"/> Incorrect Probearray													
<input type="checkbox"/> Lot Number: <input type="checkbox"/> Process: <div style="border: 1px solid black; padding: 2px; display: inline-block;"> <input type="checkbox"/> Validate <input type="checkbox"/> Image Process <input type="checkbox"/> Virtual QC <input type="checkbox"/> Mask <input type="checkbox"/> Validate CHP <input type="checkbox"/> Publish <input type="checkbox"/> Archive <input type="checkbox"/> Analyze </div>			<input type="checkbox"/> Problem: <input type="checkbox"/> OK <input type="checkbox"/> DAT file not found after scan <input type="checkbox"/> CEL file not found after scan <input type="checkbox"/> DAT file created without DB entry <input type="checkbox"/> CHP file is not found <input type="checkbox"/> CEL file has been modified or not <input type="checkbox"/> Analyzed with incorrect parameters <input type="checkbox"/> Analyzed without virtual QC													
<input type="checkbox"/> Pass/Fail: <input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> None <input type="checkbox"/> Project: <div style="border: 1px solid black; padding: 2px; display: inline-block;"> <input type="checkbox"/> 010Cp <input type="checkbox"/> 0133 <input type="checkbox"/> 0134 <input type="checkbox"/> 0135 <input type="checkbox"/> 0136 </div>			<input type="checkbox"/> FG: U95AV2 <input type="checkbox"/> FG: U95B <input type="checkbox"/> FG: U95C <input type="checkbox"/> FG: U95D <input type="checkbox"/> FG: U95E <input type="checkbox"/> MG: U74A <input type="checkbox"/> MG: U74A/V2 <input type="checkbox"/> MG: U74B <input type="checkbox"/> MG: U74B/V2 <input type="checkbox"/> MG: U74C <input type="checkbox"/> MG: U74C/V2													
Image Processing Parameters <table border="1"> <tr> <td colspan="2"> <input type="checkbox"/> No Metrics <input type="checkbox"/> No P/F Flags: </td> <td colspan="2"> <input type="checkbox"/> IP Test <input type="checkbox"/> Low Limit <input type="checkbox"/> Hi Limit <input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> Both </td> <td colspan="2"> <input type="checkbox"/> IP Test <input type="checkbox"/> Low Limit <input type="checkbox"/> Hi Limit <input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> Both </td> </tr> <tr> <td colspan="2"> <input type="checkbox"/> Avg </td> <td colspan="2"> <input type="checkbox"/> Right Outer Edge <input type="checkbox"/> Top 25% Edge <input type="checkbox"/> Bottom 25% Edge <input type="checkbox"/> Left 25% Edge <input type="checkbox"/> Right 25% Edge <input type="checkbox"/> Top 75% Edge <input type="checkbox"/> Bottom 75% Edge <input type="checkbox"/> Left 75% Edge <input type="checkbox"/> Right 75% Edge <input type="checkbox"/> Horiz 25% Max/Min <input type="checkbox"/> Vert 25% Max/Min <input type="checkbox"/> Horiz 75% Max/Min <input type="checkbox"/> Vert 75% Max/Min <input type="checkbox"/> Image 5% Intensity <input type="checkbox"/> S7/8 Active <input type="checkbox"/> S7/8 Gap/Off <input type="checkbox"/> Mean Avg Diff </td> <td colspan="2"> <input type="checkbox"/> Avg Intensity (All) <input type="checkbox"/> Outer Count <input type="checkbox"/> Saturation Count <input type="checkbox"/> Spikein Required <input type="checkbox"/> Vert 10% peak/med <input type="checkbox"/> Avg DigoB2 Intens <input type="checkbox"/> Avg Spikein Intens <input type="checkbox"/> Spikein Intercept <input type="checkbox"/> Spikein Slope <input type="checkbox"/> Negative PM-MM <input type="checkbox"/> Vert Outlier Var <input type="checkbox"/> Horiz Outlier Var <input type="checkbox"/> Top Outlier Edge <input type="checkbox"/> Botm Outlier Edge <input type="checkbox"/> Left Outlier Edge </td> </tr> </table>					<input type="checkbox"/> No Metrics <input type="checkbox"/> No P/F Flags:		<input type="checkbox"/> IP Test <input type="checkbox"/> Low Limit <input type="checkbox"/> Hi Limit <input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> Both		<input type="checkbox"/> IP Test <input type="checkbox"/> Low Limit <input type="checkbox"/> Hi Limit <input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> Both		<input type="checkbox"/> Avg		<input type="checkbox"/> Right Outer Edge <input type="checkbox"/> Top 25% Edge <input type="checkbox"/> Bottom 25% Edge <input type="checkbox"/> Left 25% Edge <input type="checkbox"/> Right 25% Edge <input type="checkbox"/> Top 75% Edge <input type="checkbox"/> Bottom 75% Edge <input type="checkbox"/> Left 75% Edge <input type="checkbox"/> Right 75% Edge <input type="checkbox"/> Horiz 25% Max/Min <input type="checkbox"/> Vert 25% Max/Min <input type="checkbox"/> Horiz 75% Max/Min <input type="checkbox"/> Vert 75% Max/Min <input type="checkbox"/> Image 5% Intensity <input type="checkbox"/> S7/8 Active <input type="checkbox"/> S7/8 Gap/Off <input type="checkbox"/> Mean Avg Diff		<input type="checkbox"/> Avg Intensity (All) <input type="checkbox"/> Outer Count <input type="checkbox"/> Saturation Count <input type="checkbox"/> Spikein Required <input type="checkbox"/> Vert 10% peak/med <input type="checkbox"/> Avg DigoB2 Intens <input type="checkbox"/> Avg Spikein Intens <input type="checkbox"/> Spikein Intercept <input type="checkbox"/> Spikein Slope <input type="checkbox"/> Negative PM-MM <input type="checkbox"/> Vert Outlier Var <input type="checkbox"/> Horiz Outlier Var <input type="checkbox"/> Top Outlier Edge <input type="checkbox"/> Botm Outlier Edge <input type="checkbox"/> Left Outlier Edge	
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FIG. 4

Site	Chip	ChipType	Tissue Type	IP Fail Count	IP Fail Description	Intensity All	Intens/BG	Image 5%
A	1	RG U34A	LIVER, NOS	2	All, Artifacts, Uneven	391	5.446	72
	2	RG U34A	LIVER, NOS	3	All, Artifacts, Uneven	463	6.88	67
	3	RG U34A	LIVER, NOS	2	All, Artifacts, Uneven	529	7.317	72
	4	RG U34A	LIVER, NOS	1	All	365	5.105	72
	5	RG U34A	LIVER, NOS	1	All	556	6.864	81
	6	RG U34A	LIVER, NOS	1	All	469	7.528	62
	7	RG U34A	LIVER, NOS	2	All, Artifacts, Uneven	469	6.312	74
	8	RG U34A	LIVER, NOS	2	All, Artifacts, Uneven	551	8.636	64
	9	RG U34A	LIVER, NOS	2	All, Artifacts, Uneven	369	6.119	60
	10	RG U34A	LIVER, NOS	2	All, Artifacts, Uneven	453	7.906	57
	11	RG U34A	LIVER, NOS	1	All	337	4.849	70
	12	RG U34A	LIVER, NOS	2	All, Artifacts, Uneven	362	5.3	68
	13	RG U34A	LIVER, NOS	1	All	333	4.69	71
	14	RG U34A	LIVER, NOS	5	All, Artifacts, Grid, Uneven	667	9.038	74
	15	RG U34A	LIVER, NOS	2	All, Artifacts, Uneven	321	4.735	68
B	1	RG U34A	LIVER, NOS	0		315	6.389	49
	2	RG U34A	LIVER, NOS	0		295	4.836	61
	3	RG U34A	LIVER, NOS	0		315	5.526	57
	4	RG U34A	LIVER, NOS	0		306	5.741	53
	5	RG U34A	LIVER, NOS	2	All, Haze Band	294	5.043	58
	6	RG U34A	LIVER, NOS	0		305	5.865	52
	7	RG U34A	LIVER, NOS	2	Artifacts, Uneven	419	6.135	68
	8	RG U34A	LIVER, NOS	1	Artifacts, Uneven	373	6.602	57
	9	RG U34A	LIVER, NOS	11	Artifacts, Haze Band, Intensity, Uneven	1294	12.666	102
	10	RG U34A	LIVER, NOS	2	All, Artifacts, Uneven	508	6.773	75
	11	RG U34A	LIVER, NOS	1	All	294	5.845	50
	12	RG U34A	LIVER, NOS	2	Artifacts, Uneven	399	7.087	56
	13	RG U34A	LIVER, NOS	1	Artifacts, Uneven	417	6.915	60
	14	RG U34A	LIVER, NOS	0		296	6.004	49
	15	RG U34A	LIVER, NOS	1	All	208	3.014	69

FIG. 4A

Negative PM-MM	Mean AvgDiff	Raw 5'/3' GapDH	Raw 5'/3' B-Actin	Intensity Spikelets	Intensity OligoB2	Li/Wong Outliers	Saturation Count	Vert 10% peak/med	Spikelets Intercept
46327	118	0.935	0.685	156	11733	2619	0	1.095	3.597
46522	153	0.847	0.721	238	10182	2690	0	1.105	4.146
45037	194	0.942	0.804	324	10683	2666	0	1.075	4.242
47464	107	0.95	0.729	188	11770	2681	0	1.086	4.143
46077	182	0.829	0.741	271	10916	2676	0	1.085	4.23
45626	164	0.897	0.684	427	11569	2856	2	1.073	4.934
45838	170	0.889	0.792	298	7980	2687	0	1.078	3.88
44793	195	0.873	0.684	197	10089	2823	0	1.068	4.244
45615	123	0.965	0.626	286	9582	2615	0	1.054	5.043
44523	175	0.953	0.734	243	9574	2900	0	1.094	3.806
47193	107	1.016	0.687	214	11018	2758	0	1.065	4.309
47243	101	0.909	0.699	188	12237	2620	0	1.084	3.113
46881	105	0.904	0.75	187	10477	2582	0	1.08	3.368
44376	270	0.935	0.75	331	11284	2646	0	1.108	4.146
47765	85	0.944	0.7	178	11579	2574	0	1.127	3.758
46492	110	0.866	0.692	61	2906	2598	0	1.089	4.157
47925	94	0.901	0.711	64	2652	2349	0	1.088	4.214
47385	103	0.852	0.695	70	3113	2436	0	1.166	4.345
46434	102	0.862	0.689	57	2332	2533	0	1.149	4.1
47087	85	0.88	0.723	65	2629	2421	0	1.265	4.269
45981	98	0.861	0.725	73	2835	2511	0	1.152	4.34
47663	130	0.854	0.747	75	3241	2384	0	1.064	4.382
47533	111	0.845	0.746	88	2946	2373	0	1.058	4.623
51529	266	1.012	0.581	104	4521	1761	1	1.357	4.969
46733	174	0.905	0.73	108	4516	2508	0	1.098	4.693
46909	90	0.897	0.688	54	2432	2411	0	1.13	4.056
46670	128	0.813	0.717	72	3478	2483	0	1.071	4.383
47504	118	0.866	0.659	90	4211	2347	0	1.072	4.68
46688	94	0.837	0.678	75	2793	2562	1	1.12	4.44
49044	62	0.681	0.693	48	3336	2404	0	1.046	3.894

FIG. 4B

Spikeln Slope	Vert Outlier Var	Horiz Outlier Var	Top Outlier Edge Ratio	Bottom Outlier Edge Ratio	Left Outlier Edge Ratio	Right Outlier Edge Ratio	25% Top Edge Ratio	25% Bottom Edge Ratio	25% Left Edge Ratio
0.653	22.646	13.817	0.836	0.913	0.801	0.946	1.182	0.947	1
0.64	29.924	17.055	0.764	0.897	1.079	0.928	1.197	0.95	1.022
0.707	24.722	18.077	0.9	0.917	1.139	0.878	1.18	0.948	1.062
0.497	28.449	16.471	0.908	0.824	0.819	0.938	1.137	0.981	1.046
0.699	28.735	23.511	0.81	0.86	1.15	0.884	1.131	0.956	1.043
0.666	30.882	17.744	0.767	0.908	0.952	0.858	1.138	0.947	1.025
0.81	16.837	19.078	0.847	0.963	1.012	0.995	1.167	0.959	1.016
0.716	30.097	23.347	0.774	0.94	0.989	0.957	1.223	0.966	1.047
0.424	29.957	15.748	0.886	0.98	0.883	0.797	1.092	1.029	1.014
0.779	29.609	18.137	0.811	0.811	1.083	0.95	1.207	0.976	1.064
0.501	24.843	19.022	0.84	0.938	0.888	0.92	1.156	0.968	1.014
0.851	24.225	16.097	0.852	0.878	0.759	0.911	1.155	0.969	0.988
0.807	24.343	8.665	0.841	0.78	0.943	1.03	1.145	0.979	1.02
0.823	25.686	23.463	0.83	0.83	1.19	0.743	1.282	0.962	1.101
0.641	23.967	14.159	0.858	0.875	0.902	0.972	1.199	0.927	1.038
0.941	24.777	22.401	0.802	0.802	0.96	0.908	1.14	0.976	0.953
0.93	21.79	17.26	0.837	0.876	1.066	0.883	1.076	1.013	0.991
0.91	23.558	16.515	0.764	0.949	0.994	0.873	1.077	1.023	0.977
0.93	23.148	12.457	0.779	0.832	1.07	0.886	1.068	1.004	1.022
0.889	18.967	17.122	0.838	0.996	1.113	0.919	1.034	0.972	1.028
0.932	25.84	21.033	0.786	0.849	1.052	1.008	1.106	0.998	1.02
0.92	19.927	17.095	0.696	0.912	0.936	0.889	1.058	1.022	0.898
0.863	25.018	18.476	0.823	0.927	1.073	1.016	1.091	1.012	0.947
0.764	19.74	9.226	0.943	1.08	1.144	0.979	0.742	0.568	0.885
0.957	20.442	18.247	0.887	0.923	0.993	0.905	1.153	1.05	1.05
0.915	15.961	12.333	0.813	0.86	1.015	0.923	1.065	0.991	1.018
0.899	26.67	18.798	0.828	0.864	0.981	0.918	1.102	1.017	0.936
0.834	18.036	18.717	0.874	0.96	1.019	0.952	1.114	1.012	0.955
0.887	25.912	17.238	0.746	0.895	1.051	0.955	1.148	0.993	1.037
0.92	15.16	10.043	0.935	0.935	1.141	1.022	1.058	0.988	1.02

FIG. 4C

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25% Right Edge Ratio	75% Top Edge Ratio	75% Bottom Edge Ratio	75% Left Edge Ratio	75% Right Edge Ratio	Horiz 25% Max/Min	Vert 25% Max/Min	Horiz 75% Max/Min	Vert 75% Max/Min	Affy Outliers
1.082	1.494	0.888	0.981	1.16	1.197	1.475	1.648	2.554	28
1.108	1.531	0.904	1.019	1.25	1.195	1.535	1.645	2.69	18
1.055	1.541	0.855	1.185	0.967	1.146	1.533	1.365	2.802	10
1.084	1.374	0.944	1.042	1.185	1.146	1.375	1.522	2.287	46
1.057	1.413	0.9	1.112	1.093	1.143	1.445	1.476	2.46	6
1.078	1.441	0.875	1.078	1.105	1.203	1.428	1.526	2.541	45
1.091	1.486	0.93	0.999	1.202	1.179	1.517	1.639	2.651	18
1.102	1.613	0.909	1.088	1.201	1.192	1.629	1.583	3.077	40
1.128	1.309	1.043	1.051	1.071	1.214	1.348	1.439	2.507	63
1.02	1.556	0.895	1.105	1.099	1.139	1.546	1.478	2.946	194
1.108	1.556	0.884	1.031	1.174	1.187	1.359	1.541	2.607	111
1.115	1.476	0.895	0.963	1.136	1.227	1.373	1.688	2.477	118
1.068	1.402	0.929	1.034	1.118	1.122	1.35	1.489	2.347	112
1.018	1.828	0.863	1.276	0.902	1.211	1.69	1.598	3.552	27
1.079	1.612	0.783	1.09	1.139	1.146	1.456	1.453	2.711	28
1.01	1.41	0.941	0.981	1.063	1.176	1.363	1.447	2.318	50
1.003	1.413	0.961	1.012	1.058	1.111	1.308	1.328	2.355	28
1.03	1.437	0.961	1.057	1.034	1.135	1.385	1.364	2.521	46
0.981	1.406	0.95	1.049	1.001	1.109	1.378	1.316	2.372	18
1.002	1.333	0.965	1.169	1.017	1.115	1.445	1.336	2.219	65
1.024	1.442	0.941	1.035	1.125	1.118	1.42	1.447	2.554	38
1.015	1.305	0.947	0.881	1.01	1.237	1.419	1.539	2.317	23
0.928	1.395	0.952	0.922	0.861	1.188	1.41	1.434	2.478	77
1.354	0.999	0.627	0.91	1.321	2.146	2.741	2.074	2.323	575
1.014	1.477	0.979	1.071	1.054	1.161	1.529	1.423	2.745	104
1.005	1.33	0.905	1.087	0.987	1.121	1.38	1.346	2.274	61
0.947	1.42	0.936	0.873	0.926	1.183	1.408	1.529	2.557	33
0.955	1.37	0.928	0.933	0.93	1.189	1.463	1.474	2.403	55
1	1.465	0.924	1.02	1.075	1.116	1.421	1.368	2.58	20
1.032	1.444	1.007	1.106	1.054	1.087	1.148	1.38	2.26	133

FIG. 4D

log(Intens)/ log(BG)	SpikeIn R-Squared	Lot Num	Scanner	Fluidics	Fluid Sta	Fluid Pos
Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
1.476	0.868	2001343	scanner13	fluidics03	5	1
1.383	0.973	2001343	scanner02	fluidics03	4	3
1.423	0.976	2001343	scanner09	fluidics03	3	2
1.44	0.972	2001343	scanner14	fluidics03	1	1
1.398	0.985	2001343	scanner01	fluidics03	1	4
1.448	0.971	2001343	scanner02	fluidics03	2	2
1.429	0.965	2001343	scanner15	fluidics04	3	1
1.468	0.976	2000426	scanner15	fluidics03	8	3
1.549	0.971	2000426	scanner04	fluidics04	1	3
1.443	0.962	2000426	scanner05	fluidics04	4	1
1.451	0.961	2000426	scanner14	fluidics04	2	2
1.486	0.976	2000426	scanner15	fluidics03	6	3
1.472	0.973	2000426	scanner15	fluidics03	7	4
1.46	0.978	2000426	scanner02	fluidics03	8	1
1.261	0.929	2000426	scanner05	fluidics03	5	3

FIG. 4E

IP Fail Flags
0000000010 00000000 00000000 00100000
0000000010 10000000 00000000 00100000
0000000010 00000000 00000000 00100000
00000000 00000000 00000000 00100000
00000000 00000000 00000000 00100000
00000000 00000000 00000000 00100000
00000000 00000000 00000000 00100000
0000000010 00000000 00000000 00100000
0000000010 00001000 00000000 00100000
0000000010 00000000 00000000 00100000
00000000 00000000 00000000 00100000
00000000 00001000 00000000 00100000
00000000 00000000 00000000 00100000
0000000010 01010000 01000000 00100000
00000000 00100000 00000000 00100000
00000000 00000000 00000000 00000000
00000000 00000000 00000000 00000000
00000000 00000000 00000000 00000000
00000000 00000000 00000000 00000000
00000000 00000000 00000000 01100000
00000000 00000000 00000000 00000000
00000000 01000100 00000000 00000000
00000000 00000100 00000000 00000000
000000111 10101111 00000000 01000100
00000010 00000000 00000000 00100000
00000000 00000000 00000000 00100000
00000000 01000100 00000000 00000000
00000010 00000000 00000000 00000000
00000000 00000000 00000000 00000000
00000000 00000000 00000000 00100000

FIG. 4F

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Fields		DESCRIPTION
ID		Sequence (Primary Key)
CHIPID		Not used
EXPERIMENTNA		Link to chip table
PROCESSID		From CV_PROCESS
PERSON		User or Application
DATETIME		Timestamp
HISTORY		CURRENT or HISTORY
PROBLEMPID		From CV_PROBLEM (>0 if
FILENAME		Filename from Analysis or

FIG. 5

ID	DESCRIPTION
ANALYSIS	Analysis
VALIDATE	Validate
IMAGEPRO	Image
VQC	Visual QC
MASK	Mask
VALIDCHP	Validate
IMPORT	Import
PUBLISH	Publish
ARCHIVE	Archive

FIG. 6

ID	DESCRIPTION
0	ok
1	DAT file not found after scan
2	CEL file not found after scan
3	DAT file created without DB entry
4	CHP file is not found
5	CEL file has been modified or
6	Analyzed with incorrect parameters
7	Analyzed without visual QC
8	CEL file created without DB entry
9	CHP file created without DB entry
10	CEL file is older than DAT file
11	CHP file is older than CEL file
12	Failed Visual QC
13	Failed Image Processing

FIG. 7

Fields	DESCRIPTION
CHIPID	IPK
EXPERIMENTNAM	From Affv
PERSON	QCUser
PROBEARRAYTY	From Affv
COMMENTS	
QCDATE	Timestamp
LOTNUMBER	From Affv
PASSFAIL	Set by vqc user
DATESTAMP	Current date
FAILREASON	Reason chip failed QC – (no longer same as defect reason)
NEEDSMASK	Flag indicating image needs to be masked (set by vqc user from QC
MASKED	Flag indicating has been masked ('Y') or not (blank) Set from Qualms
IP_FAILFLAGS	25 flag bits. 1=corresponding metric is out of range (failed)
IP_FAILEDSCRIPT	Description of defects implied by failed metrics
IP_LIMITSVER	Version number of limits used to compute IP_FAILFLAGS
32 IP Metric columns	IP_INTENSALL, IP_INTENSSPIKE*, IP_INTENSOLIGO2*, IP_OUTLIERS, IP_SATUR, IP_SPIKEINR2, IP_VERT10, IP_SPIKEINICPT*, IP_SPIKEINSLOPE*, IP_NEGATIVEPP, IP_VERTOUTVAR, IP_HOROUTVAR, IP_TOPOUTEDGE, IP_BOTTOMOUTEDGE, IP_LEFTOUTEDGE, IP_RIGHTOUTEDGE, IP_TOPEDGE25, IP_BOTTOMEDGE25, IP_LEFTEDGE25, IP_RIGHTEDGE25, IP_TOPEDGE75, IP_BOTTOMEDGE75, IP_LEFTEDGE75, IP_RIGHTEDGE75, IP_HOR25MINMAX, IP_VERT25MINMAX, IP_HOR75MINMAX, IP_VERT75MINMAX, IP_INTENSE5TH, IP_53GAPDH*, IP_53BACTIN*, IP_MEANAVDIFF* *= no limits for these metrics

FIG. 8

Fields	DESCRIPTION
DEFECTID	Sequence (Primary Key)
OLDDEFECTDESCR	For historic reasons – no longer used
CLASS	Defect type
IMAGE	Not used
CHIPID	FK. Link to ChipDefects PK
QUADRANT	Not used
DEFECTDESCRIPTION	New Description, linked to CV_FAILREASON

FIG. 9

Fields	DESCRIPTION
DEFECTID	Sequence (Primary Key)
SHAPE	0=rectangle, 1=ellipse
IMAGE LEFT	Defect location in image coordinates
IMAGE RIGHT	
IMAGE TOP	
IMAGE BOTTOM	
GRID LEFT	Defect location in cel file (grid) coordinates
GRID RIGHT	
GRID TOP	
GRID BOTTOM	

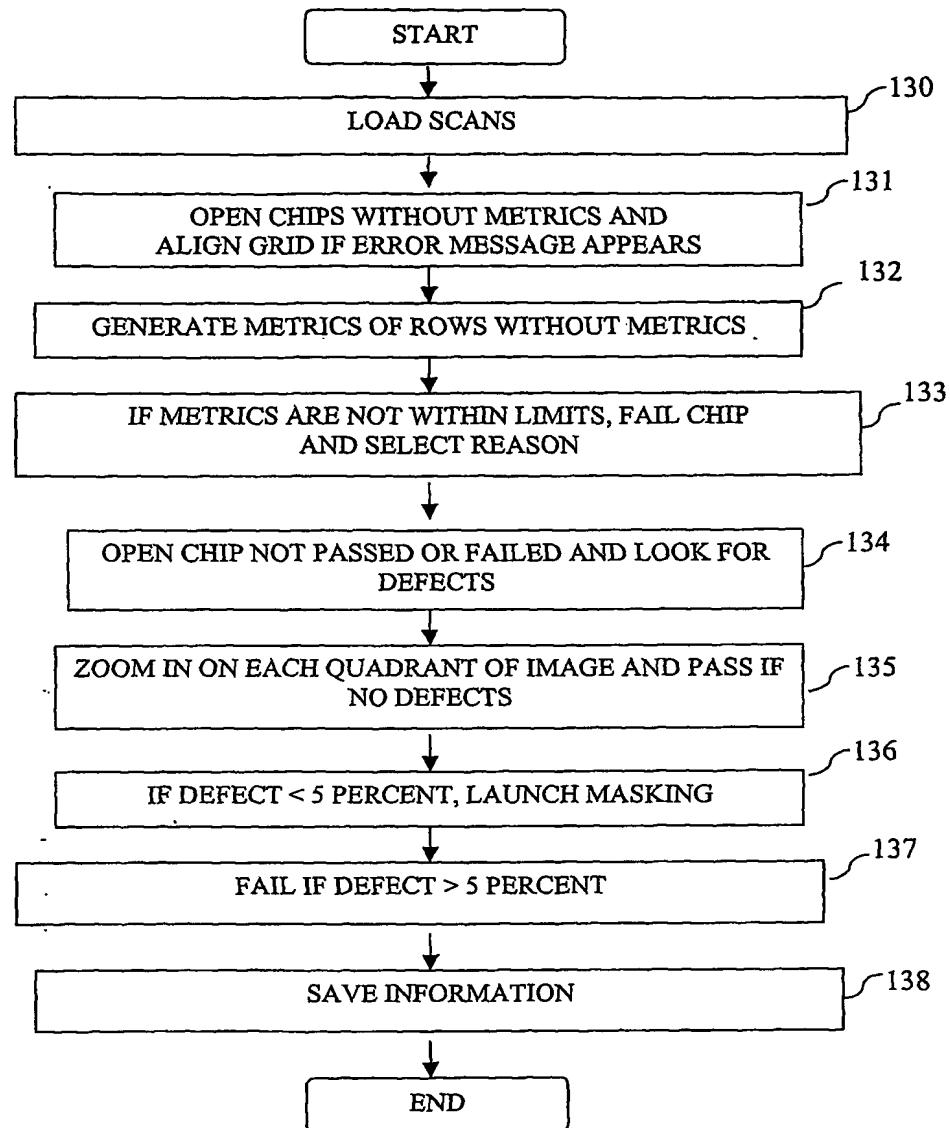
FIG. 10

REASON
Bright Locally
Bright Overall
Cracked
Crop Circle
Dim Locally
Dim Overall
Haze Band
Haze
High Background
Incorrect Probearray
Incorrect Scanner Setting
No Sample
Other
Scanner Failure
Snow

FIG. 11

Column	Table	DESCRIPTION
LOT RUN ID	AFFX PHYSICAL AR	Lot Number
PROBE ARRAY NA	AFFX PHYSICAL AR	Chip Type – used to update ProbeArrayType in Chip
EXP COMMENT	AFFX ARRAY EXPER	Scanner setting (High/Low)
PROJECT NAME	AFFX SAMPLE	Project name
SCANDATE	CHIP HYB SCAN INF	Scan Date
SCANNER	CHIP HYB SCAN INF	Scanner Name
FLUIDICS	CHIP HYB SCAN INF	Fluidics Name
STATION	CHIP HYB SCAN INF	Fluidics Station
POSITION	CHIP HYB SCAN INF	Fluidics Position

FIG. 12

**FIG. 13**

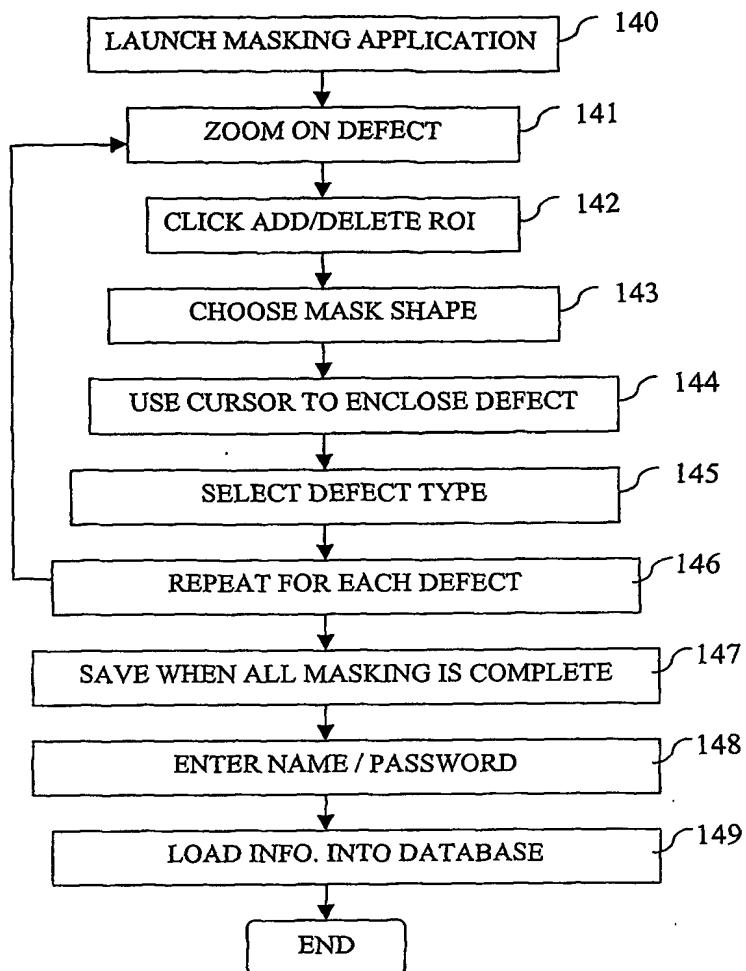


FIG. 14